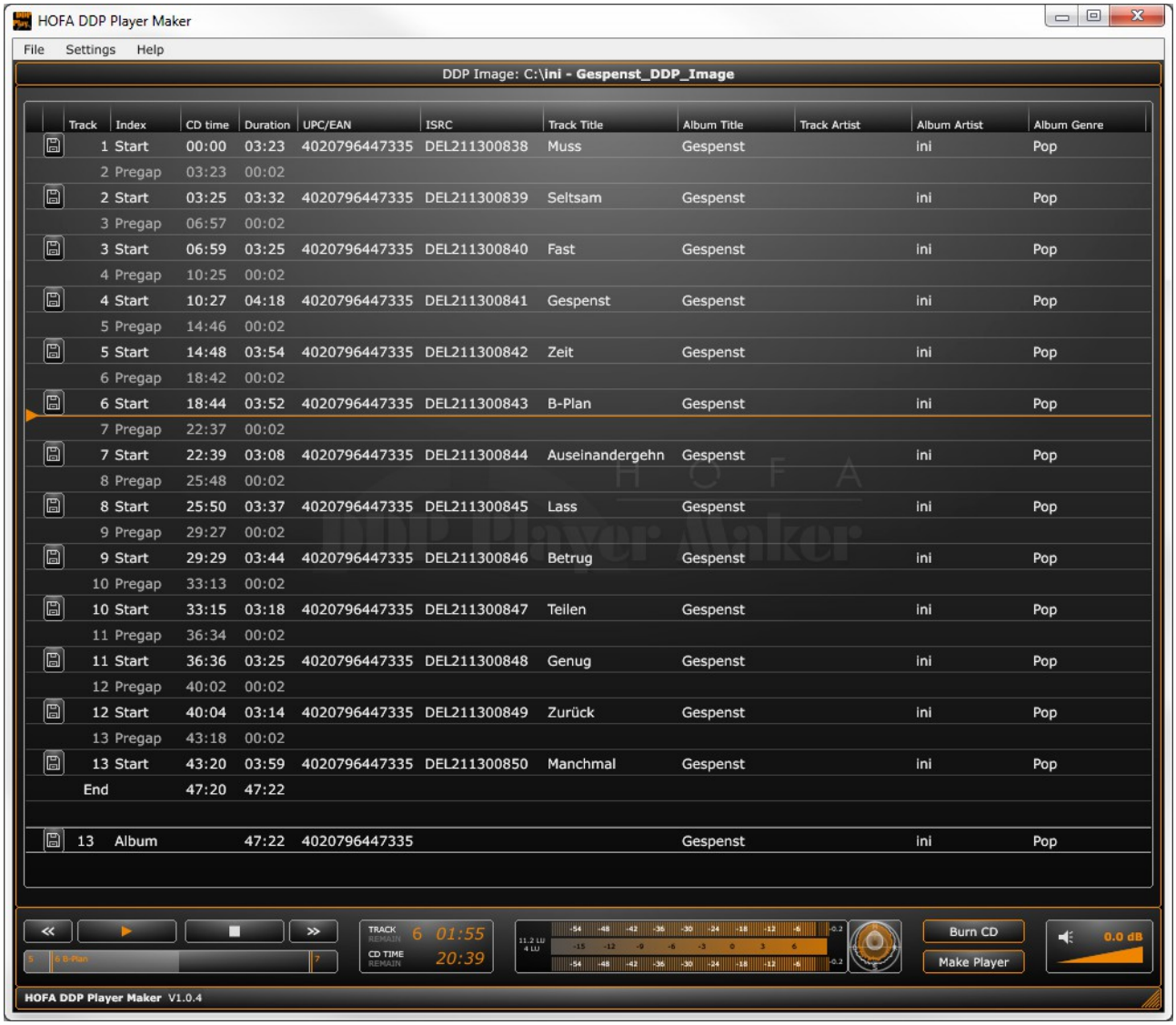
HOFA PLUGINS

HOFA DDP Player Maker


HOFA DDP Player Maker
File
Settings
Help
DDP Image: C:\ini - Gespenst_DDP_Image
Track | Index | CD time | Duration | UPC/EAN | ISRC | Track Title | Album Title | Track Artist | Album Artist | Album Genre
1 Start 00:00 03:23 4020796447335 DEL211300838 Muss Gespenst ini Pop
2 Pregap 03:23 00:02
2 Start 03:25 03:32 4020796447335 DEL211300839 Seltsam Gespenst ini Pop
3 Pregap 06:57 00:02
3 Start 06:59 03:25 4020796447335 DEL211300840 Fast Gespenst ini Pop
4 Pregap 10:25 00:02
4 Start 10:27 04:18 4020796447335 DEL211300841 Gespenst Gespenst ini Pop
5 Pregap 14:46 00:02
5 Start 14:48 03:54 4020796447335 DEL211300842 Zeit Gespenst ini Pop
6 Pregap 18:42 00:02
6 Start 18:44 03:52 4020796447335 DEL211300843 B-Plan Gespenst ini Pop
7 Pregap 22:37 00:02
7 Start 22:39 03:08 4020796447335 DEL211300844 Auseinandergehn Gespenst ini Pop
8 Pregap 25:48 00:02
8 Start 25:50 03:37 4020796447335 DEL211300845 Lass Gespenst ini Pop
9 Pregap 29:27 00:02
9 Start 29:29 03:44 4020796447335 DEL211300846 Betrug Gespenst ini Pop
10 Pregap 33:13 00:02
10 Start 33:15 03:18 4020796447335 DEL211300847 Teilen Gespenst ini Pop
11 Pregap 36:34 00:02
11 Start 36:36 03:25 4020796447335 DEL211300848 Genug Gespenst ini Pop
12 Pregap 40:02 00:02
12 Start 40:04 03:14 4020796447335 DEL211300849 Zurück Gespenst ini Pop
13 Pregap 43:18 00:02
13 Start 43:20 03:59 4020796447335 DEL211300850 Manchmal Gespenst ini Pop
End 47:20 47:22
13 Album 47:22 4020796447335 Gespenst ini Pop
TRACK REMAIN 6 01:55
CD TIME REMAIN 20:39
Burn CD
Make Player
0.0 dB
HOFA DDP Player Maker V1.0.4

User Manual

HOFA DDP Player Maker

V1.0.12

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Introduction

Most people will not be able to do a lot with a DDP image. For burning such an image to CD or even for listening to it you will need a specialized software that you will not find to be installed on most computers. If you want to deliver DDP images to your clients that include a matching player software, DDP Player Maker is the perfect solution for you.

It just does not matter if your customer is using a Windows PC or a Mac, as the player will be included for both platforms. The created player can be set up with your own logo that will be shown as a splash screen. You can also add your custom info text and a link to your website. Furthermore you can decide, if the created player should be able to burn CDs or not and if exporting tracks will be allowed.

Installation

To install HOFA DDP Player Maker you will need the HOFA-Plugins Manager which you can download here:

http://hofa-plugins.de/pages/start_en/downloads_en.php

The HOFA-Plugins Manager also allows installing all further products by HOFA Plugins which you can test for 14 days if you are interested.

Select "Install" in the field "HOFA DDP Player Maker". By clicking "Apply Changes", the latest version of the software will be downloaded and installed to your computer.

If you have not yet bought the product, you can test it for 14 days. Click on "Start Demo" to start that 14-day period. Please use the demo period before buying to make sure that HOFA DDP Player Maker is compatible with your CD writer.

Important note for **Windows XP and Vista** users:

To burn CDs with HOFA DDP Player Maker on Windows XP or Vista, you may need a Microsoft update which is not installed automatically by Windows. The update can be downloaded here:

http://www.microsoft.com/downloads/details.aspx?FamilyID=63ab51ea-99c9-45c0-980a-c556746fcf05&displaylang=en&displaylang=en

Activation

The activation of the plugin or standalone is done with the HOFA-Plugins Manager, which is also used for the installation. A detailed description of the activation and deactivation process is available here.

Limitations of the evaluation version

During the 14 days of evaluation time, you can test the software as you like. As a limitation, the right stereo channel will always be muted during playback, on CDs and in the created DDP player.

Quick Start

For anyone who does not like to read manuals, here is a quick start guide how to add an individual player for a DDP image with HOFA DDP Player Maker.

- Start HOFA DDP Player Maker
- Load a DDP image
- Click "Make Player"
- Edit splash screen, info text and link (optional)
- Decide if the created player should be able to burn CDs and export tracks
- Click "OK"

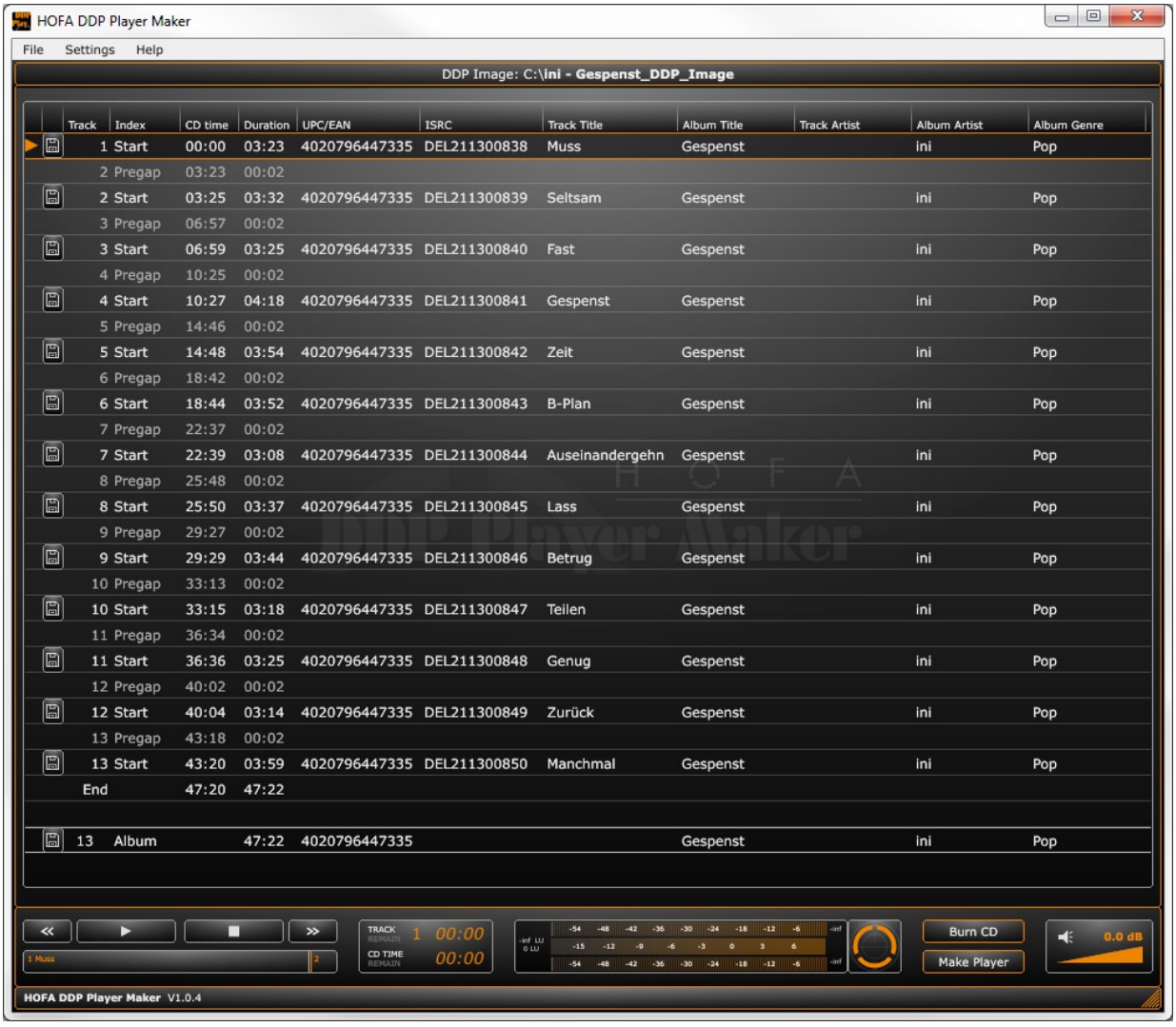
Step by step

To load a DDP image (Menu: File->Load DDP image) a file dialog will open that allows selecting folders only. A DDP image always consists of multiple files that belong together. Because of that you have to select the folder that contains all these files here. A folder that contains a DDP image can also simply be dropped on the DDP Player Maker to load it.

While loading, the DDP image is automatically validated. An invalid image where files are missing or that contains wrong MD5 checksums can not be loaded.

The track list

After opening you will see the track list with all additional information contained in the DDP image.


HOFA DDP Player Maker
File
Settings
Help
DDP Image: C:\ini - Gespenst_DDP_Image
Track | Index | CD time | Duration | UPC/EAN | ISRC | Track Title | Album Title | Track Artist | Album Artist | Album Genre
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3 Start 06:59 03:25 4020796447335 DEL211300840 Fast Gespenst ini Pop
4 Pregap 10:25 00:02
4 Start 10:27 04:18 4020796447335 DEL211300841 Gespenst Gespenst ini Pop
5 Pregap 14:46 00:02
5 Start 14:48 03:54 4020796447335 DEL211300842 Zeit Gespenst ini Pop
6 Pregap 18:42 00:02
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9 Pregap 29:27 00:02
9 Start 29:29 03:44 4020796447335 DEL211300846 Betrug Gespenst ini Pop
10 Pregap 33:13 00:02
10 Start 33:15 03:18 4020796447335 DEL211300847 Teilen Gespenst ini Pop
11 Pregap 36:34 00:02
11 Start 36:36 03:25 4020796447335 DEL211300848 Genug Gespenst ini Pop
12 Pregap 40:02 00:02
12 Start 40:04 03:14 4020796447335 DEL211300849 Zurück Gespenst ini Pop
13 Pregap 43:18 00:02
13 Start 43:20 03:59 4020796447335 DEL211300850 Manchmal Gespenst ini Pop
End 47:20 47:22
13 Album 47:22 4020796447335 Gespenst ini Pop
Burn CD
Make Player
0.0 dB
HOFA DDP Player Maker V1.0.4

The track list is a table containing all CD markers for track start, pregap and subindex. Additionally in the bottom line you can see the total number of tracks and the total playing time of the CD.

The track list contains the following columns:

- Current position: The orange arrow on the left will show you the current position for playback.
- Save track as audio file: With the save buttons you can save single tracks as audio files. Using this button in the bottom line, all tracks will be saved.
- Track: The track number.
- Index: The type of the marker (Start, Pregap, Index 2, 3...). The numeration of subindices will start at 2, because a CD player will display the normal track start as subindex 1.
- CD-Time: The time position of the marker on the CD.
- Duration: The duration of a track or a pregap.

The next columns are only visible, if the DDP image contains the appropriate information. The entries will only be displayed in the lines of a track start marker (for that track) and in the last line (for the whole CD).

- UPC/EAN: The UPC or EAN is identical in all rows, as it is always valid for the whole CD.
- ISRC: The ISRC for this track.
- Track/Album Title: The CD-Text entry "Title" for this track or for the whole CD.
- rack/Album Artist: The CD-Text entry "Artist" ("Performer") for this track or for the whole CD.
- Track/Album Songwriter: The CD-Text entry "Songwriter" for this track or for the whole CD.
- Track/Album Composer: The CD-Text entry "Composer" for this track or for the whole CD.
- Track/Album Arranger: The CD-Text entry "Arranger" for this track or for the whole CD.
- Track/Album Message: The CD-Text entry "Message" for this track or for the whole CD.
- Genre: The CD-Text entry "Genre" is identical in all rows, as it is always valid for the whole CD.

The displayed order of the columns can be adjusted by moving them with the mouse.

By clicking on a marker line the current playback position will be set to this marker. A double click will start playback.

The control panel

The control panel is used for controlling playback and for starting the CD burning and player creation process.

The playback controls are just like on any CD player. The << and >> keys have double functions. A short press will skip to the previous or next track start. Holding them a longer time will fast forward or rewind.

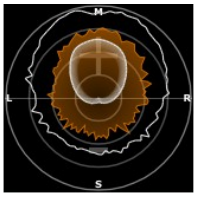
Below the playback control buttons you can move the playback position inside the current track. To make it easier to listen to track transitions, the end of the previous and the beginning of the next track is also visible.

The time display shows the current playback position of the track and the whole CD. Click on the display to toggle between current time and remaining time.

For an objective judgement of level, loudness and stereo width HOFA DDP Player Maker comes with a peak meter, an EBU-mode loudness meter and a goniometer.

The peak meter always shows a range of -60 dBFS up to 0 dBFS. The maximum levels for left and right are shown above. The EBU-mode loudness meter lies between the l/r peak meters. Loudness is only shown as one value (and not for left/right) according to EBU-mode specifications. Furthermore loudness range is shown as square brackets inside the loudness meter. More about EBU-mode and loudness range in section EBU R 128.

At the right of the meter you can find the goniometer.



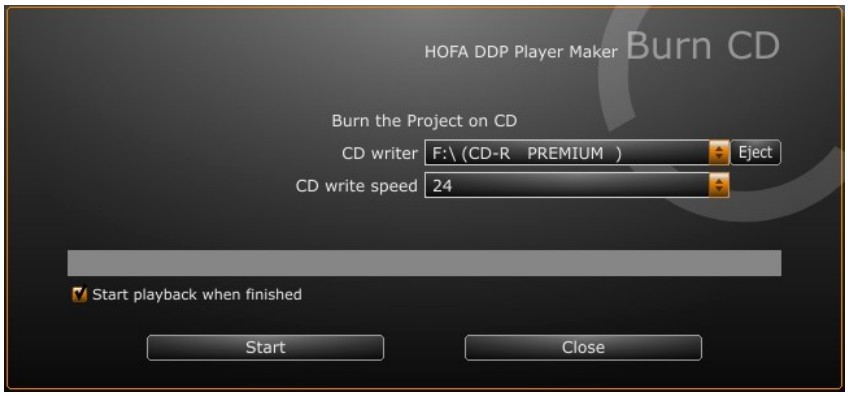
The goniometer shows three curves. Peak (orange region), Peak Hold (white line) and Energy (white line with gradient). Peak shows the current distribution, peak the maximum and energy the averaged distribution.

The display shows a logarithmic scale of 40 dB. The scale adjusts to the level in order to show low levels as well as high levels.

The volume control is only used for playback. The volume of the DDP image or the CD will not be modified here.

Burn CD

To start burning the CD there is the following dialog window:



In the select box "CD writer" you can select the device that should be used for burning the CD (if there is more than one in your computer). The CD write speed is not selectable until an empty CD has been put into that device. Click "Start" to begin the burning process. If the “Start playback when finished” option is activated, playback will start after a CD has been written. Please note that this will play back the project from your hard disk and not from the CD, as the CD will be ejected.

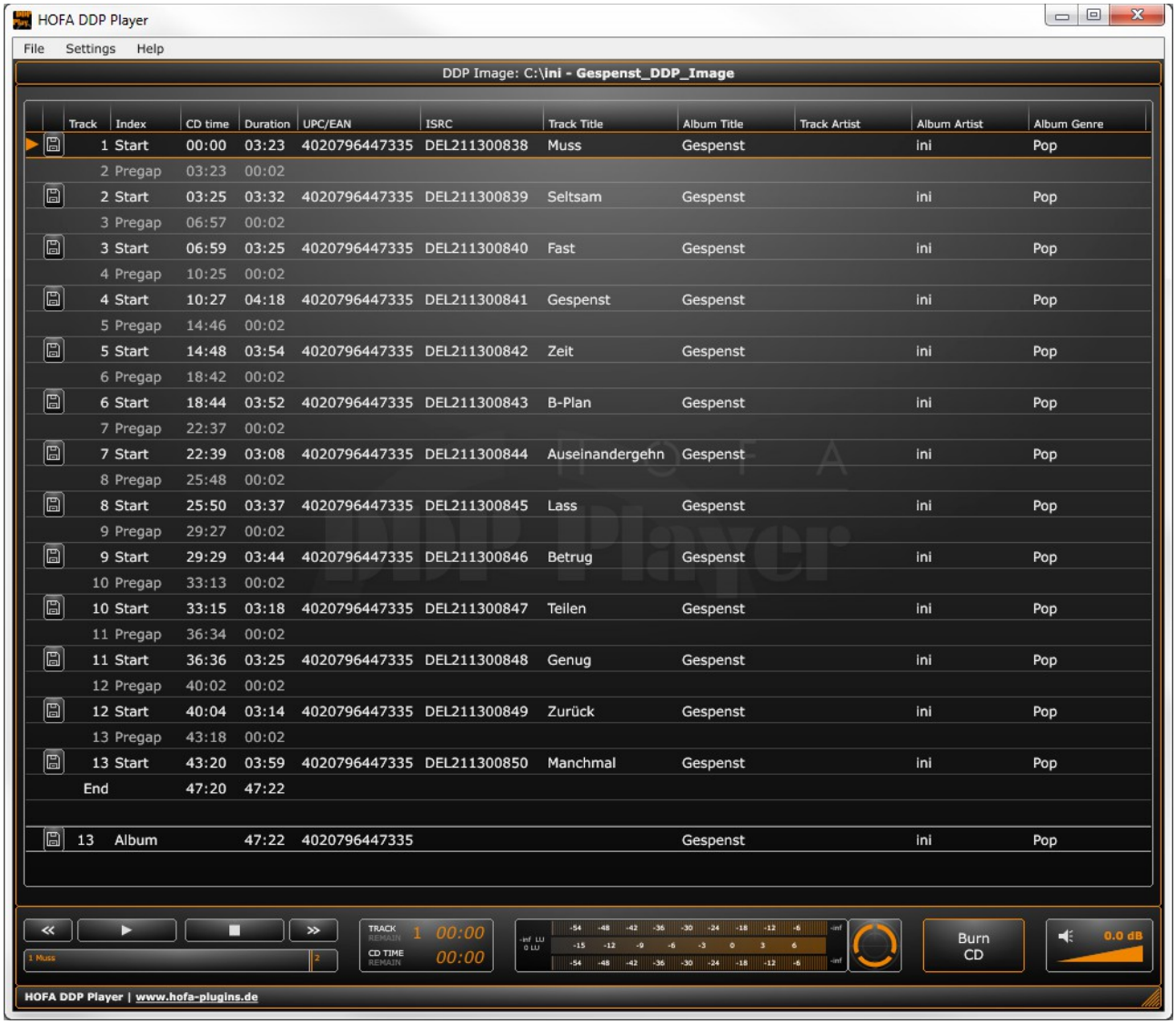
Save tracks as audio files

With the save buttons you can save single tracks as audio files. Using this button in the bottom line, all tracks will be saved. To save all tracks you can also select "Save all tracks as audio files" from the File menu.

Before saving, a dialog will be opened, that allows choosing which CD-Text information should be used to create the file names. Furthermore you can select if the files should include the pregap of the track or the pregap of the following track. This can be useful e.g. for a live album, where the applause after a song is the pregap of the next track.

Make Player

HOFA DDP Player Maker can fit a DDP image with an individaul player. That DDP Player looks very similar to DDP Player Maker and can be used the same way:



Track	Index	CD time	Duration	UPC/EAN	ISRC	Track Title	Album Title	Track Artist	Album Artist	Album Genre
1	Start	00:00	03:23	4020796447335	DEL211300838	Muss	Gespenst		ini	Pop
2	Pregap	03:23	00:02							
2	Start	03:25	03:32	4020796447335	DEL211300839	Seltsam	Gespenst		ini	Pop
3	Pregap	06:57	00:02							
3	Start	06:59	03:25	4020796447335	DEL211300840	Fast	Gespenst		ini	Pop
4	Pregap	10:25	00:02							
4	Start	10:27	04:18	4020796447335	DEL211300841	Gespenst	Gespenst		ini	Pop
5	Pregap	14:46	00:02							
5	Start	14:48	03:54	4020796447335	DEL211300842	Zeit	Gespenst		ini	Pop
6	Pregap	18:42	00:02							
6	Start	18:44	03:52	4020796447335	DEL211300843	B-Plan	Gespenst		ini	Pop
7	Pregap	22:37	00:02							
7	Start	22:39	03:08	4020796447335	DEL211300844	Auseinandergehn	Gespenst		ini	Pop
8	Pregap	25:48	00:02							
8	Start	25:50	03:37	4020796447335	DEL211300845	Lass	Gespenst		ini	Pop
9	Pregap	29:27	00:02							
9	Start	29:29	03:44	4020796447335	DEL211300846	Betrug	Gespenst		ini	Pop
10	Pregap	33:13	00:02							
10	Start	33:15	03:18	4020796447335	DEL211300847	Teilen	Gespenst		ini	Pop
11	Pregap	36:34	00:02							
11	Start	36:36	03:25	4020796447335	DEL211300848	Genug	Gespenst		ini	Pop
12	Pregap	40:02	00:02							
12	Start	40:04	03:14	4020796447335	DEL211300849	Zurück	Gespenst		ini	Pop
13	Pregap	43:18	00:02							
13	Start	43:20	03:59	4020796447335	DEL211300850	Manchmal	Gespenst		ini	Pop
End		47:20	47:22							
13	Album		47:22	4020796447335			Gespenst		ini	Pop

The most important difference is that this player won't be able to select a DDP image for opening, as it will only work with the image it was created for. This DDP image is loaded automatically when opening the player. Naturally the player will not have a "Make Player" button.

The player will be put into a subfolder "Player" inside the DDP folder. The DDP image itself is not modified. In that subfolder, you will find the players for Mac and Windows "HOFA DDP Player Mac OS-X.app" and "HOFA DDP Player Windows PC.exe". Additionally a file called "HOFA_DDP_PLAYER_INFO" will be

created there.

Before making the player, you will get to the following dialog window that allows some inidividual modifications to the player:

HOFA DDP Player Maker
Make Player
Splash Screen Image
This picture is shown when the player is started. You can use your own Logo here. The image should have a size of 800x500 pixel.
Powered by
HOFA
CD-Burn & DDP
Load image
Reset image
Show Terms of Service before starting player
Load
Show
Info text to appear in the bottom line of the player
HOFA DDP Player
Link to appear in the bottom line of the player
http://
www.hofa-plugins.de
Test
Player can burn CDs of the DDP image
Player can save tracks as audio files
Player shows level meter and goniometer
Cancel
Make Player
Make Player and zip file

Splash Screen Image

The splash screen is shown for some seconds each time the DDP Player is opened. If you want your own picture to appear there you can select one using "Load image" or you can drag & drop a file onto the preview picture. This could be e.g. your company logo or the CD cover. You can use pictures in .jpg, .png or .gif format. The picture shown as a preview here is displayed not in original size! The player will scale it down to a maximum height of 500 pixel or a maximum width of 800 pixel. Smaller pictures will occur on original size.

Show Terms of Service before starting player

If this is enabled, the user of the player will have to agree to the "Terms of Service" that will be shown every time when starting the player.

This function will not send any feedback, nor save any data on the end user's computer. The user will only have to check an accept button, before he can use

the player.

Press the "Load" button to select a pure text file (*.txt) that contains your Terms of Service thet should be shown. With the "Show" button you can preview what the "Terms of Service" dialog will look like in the player.

Info text & link

You can put your own info text and internet link to the footer bar of the DDP Player (where you can see the application name, version number and license information in DDP Player Maker). If you don't overwrite the default texts it will look like this:

The link should be a correct internet link. The obligatory http:// is automatically preceded when the link is opened in the browser and does not have to be entered. Press the "Test" button to make sure that the link works as intended. If you do not want any text or link at all, please overwrite the defaults with a space character.

Player options

If "Player can burn CDs of the DDP image" is activated, the DDP player will also be able to create CDs.

If "Player can save tracks as audio files" is activated, the DDP player will also be able to save tracks as audio files.

As the level meter or the goniometer may confuse people, you can use the "Player shows level meter and goniometer" switch to activate or deactivate that display in the player.

Settings

In the Settings menu you can find all basic settings used by the application.

- Audio output device: Select the device that should be used for playback.
- Language: English or German.

Keyboard shortcuts

Some playback functions can also be used with the computer keyboard:

Taste	**Funktion**
Enter	Start playback
0 in number pad	Stop playback
Space	Start/Stop playback
Shift + Space	Start playback at the position, where it has been started the last time
1..9	Jump to start of track 1..9
Arrow left/right	Fast forward / Rewind
Arrow up/down	Jump to next/previous marker

Interesting facts

Red Book Audio-CD

The CD-A is specified in the so called red book.

A CD-A can contain max. 79 minutes and 48 seconds of audio[1], which can be separated into up to 99 tracks. The minimum length of a track is 4 seconds. In most cases there are silent pauses between the tracks. It is also possible to have a track change without a pause. The pause between two tracks is called pregap. It can contain absolute silence but it can also be filled with audio. A CD player normally displays a negative time during the pregap which runs down to zero.

Furthermore there are subindex markers which can be used to mark a certain position inside the track. These markers are not supported by all CD players. In most cases they can only be displayed but it is not possible to jump to a subindex directly.

Audio data is always stored with a sample rate of 44,1 kHz with 16 bit. On the CD they are grouped in blocks of 588 samples, so called frames. One frame equals to a playing time of 1/75 second.

The markers for track start, track end and subindex are always related to a frame. So the minimum distance between two markers is 1 frame = 1/75 second.

With HOFA DDP Player Maker it is also possible to create CDs up to 99 minutes. To write these, special high capacity blank CDs are necessary and your CD writer has to support this feature. Please ask your pressing plant, which maximum length they allow. Generally it can not be guaranteed that CDs with these lengths can be played back with every CD player.

1 In fact the red book does not define a maximum playing time but a track distance with tolerances. The first CDs had a maximum playing time of 74 minutes. Meanwhile the production tolerances could be reduced, so that longer times became possible. Most CD pressing plants allow a playing time of up to 79:48. CDs of 90 or even 99 minutes are beyond the restrictions of the red book standard.

DDP

DDP[2] (Disc Description Protocol) is a format, that describes the content of a CD. It is frequently used to transfer the content of an Audio CD, e.g. from the mastering studio to the CD pressing plant. By using a DDP image you can avoid the use of CD-Rs and the CD writer as a possible source of errors. Furthermore you can transfer the final CD via the internet.

HOFA DDP Player Maker supports DDP-Images for CD-A in DDP 2.00 format.

The DDP image is not a single file, but a folder. All files inside this folder belong to the DDP image and always have to be used in this combination.

A typical DDP image folder consists of the following files:

- DDPID

  Contains information about the format of the DDP image
- DDPMS

  Contains information on which files belong to this DDP image
- PQDESCR (may have a different name)

  Contains information about the tracks, UPC/EAN and ISRC
- IMAGE.DAT (may have a different name and may be split up into multiple files)

  Contains audio data, so this file can be pretty large
- CDTEXT.BIN (optional, may have a different name)

  Contains all CD-Text information

Additionally there is often a checksum file. Using checksums you can assure that the single files of the image have not been modified e.g. by a transfer error. HOFA DDP Player Maker creates an MD5 checksum file together with the player if it does not exist yet.

Distributing DDP images

When distributing DDP images with an included player, it is highly recommended to use a ZIP file. This ensures that on the target system all files are received with the original subfolder structure. If the folder structure is modified, the player may not be able to open the DDP image.

On Mac OS-X the player application needs to be marked as "executable file". This marker is automatically set by OS-X when a ZIP file is unpacked. In case the files are transmitted seperately via an FTP server or a file sharing service, this marker may get lost! That would mean that the player can not be

2 DDP is a registered trademark of DCA Inc.

launched anymore. The same can happen when using other packing formats like e.g. RAR (depending on the software used for unpacking).

So the safest way is **putting the DDP image folder** with the included DDP player **into a ZIP file**.

If the recipient of your DDP-Image does not know how to use it, you can send him the link to a short tutorial video at Youtube. There are 4 versions of this video:

English, Windows: https://youtu.be/Olbjen4Yt1Q

English, Mac OS X: https://youtu.be/-583ce9X2Pk

German, Windows: https://youtu.be/6amHIOyvvYk

German, Mac OS X: https://youtu.be/kInYPTOfPGM

ISRC

The ISRC (International Standard Recording Code) is an identifier, that is unique for a track on a CD. When the track is played on the radio, this code can be used for managing license fees. Normally this code is available on all commercial CDs.

The ISRC consists of two letters followed by a 10 digit number.

The single parts are:

- Country code (2 letters), e.g. DE for Germany (Deutschland)
- Registrant code (3 digits)
- Year (2 digits)
- Designation code (5 digits)

The ISRC-Code is always provided by a registrant. It always belongs to a certain recording of a song. If a song is re-released, e.g. on a best-of compilation, it will keep its ISRC. For a remix you will need to get a new code.

For further information have a look at

http://www.ifpi.org/content/section_resources/isrc.html

UPC/EAN

The UPC (Universal Product Code) or the EAN (European Article Number) used in Europe are the numbers under the bar code that you can find on the package of any product. For automatic identification, this number can also be stored within the CD data. This code is also provided by a registrant. It is a number with 12 (UPC) or 13 (EAN) digits.

CD-Text

CD-Text is an extension to the red book standard which is supported by several CD players. When playing a CD in your computer, you should be aware that not every software player will show CD-Text information. Often the title information is downloaded from the internet, which can differ from the information that is stored on the CD itself. **Windows Media Player[3] as well as Apple iTunes[4] do not show any CD-Text information!** But there are freely available extensions and other players that make this possible. For example:

For Windows:

- VLC Media Player

  http://www.videolan.org/vlc/
- Winamp

  http://www.winamp.com/
- Extension for Windows Media Player

  http://bmproductions.fixnum.org/moreprogs/wmpcdtext.htm

For Mac OS-X:

- Extension for iTunes

  http://dougscripts.com/itunes/scripts/ss.php?sp=cdtexttocdinfo
- drutil

  If you like it cryptic, type *drutil cdtext* in the terminal window. This will list up all CD-Text information contained on the CD in plist format.

CD-Text can store the following information for the complete album and for each track:

- Title
- Artist/Performer
- Songwriter
- Composer
- Arranger
- Additional message

For the complete album you can also specify a genre.

3 Windows Media Player is a registered trademark of Microsoft Corporation in the U.S. and other countries.
4 iTunes is a trademark of Apple Inc., registered in the U.S. and other countries.

Special characters in CD-Text

The CD-Text standard as defined by Sony uses the ISO 8859-1 character encoding, which includes the most common characters used in western European languages. Unfortunately not all languages are covered completely. Especially some characters used in eastern European languages like Polish or Turkish are missing.

Generally you should be aware that titles stored in CD-Text will often be displayed on CD-Players or car stereos that have only very limited displays. Many of these devices will not show any special characters at all. So you could think about avoiding special characters all and replace for example a German "ä" by its equivalent "ae".

Alternativaly the CD-Text standard also allows for Japanese, which is stored using the so called Shift-JIS character encoding. This encoding does not include the European special characters, so a mixture of both is not possible. As mentioned before, not all CD-Players that support CD-Text will be able to display Japanese.

HOFA DDP Player will automatically recognize the encoding used in the DDP image and can also display CD-Text in Japanese.

EBU R 128

EBU R 128 is an EBU (European Broadcasting Union) standard defining guide values for loudness in broadcasting. The origin of this standard lies in the increasing loudness in broadcasting and the dynamic variations resulting from that (e.g. adds are often louder than regular program). To counteract this loudness normalization was introduced, aside with a referenced target level.

With EBU R 128 an open standard for loudness measurement was created. Also new units LU and LUFS (Loudness Unit / Full Scale) were introduced. One LU is basically the same as one dB but describes a loudness measured according to EBU R 128. While LU is a relative level LUFS is an absolute level, the relationship being 0 LU = -23 LUFS.

To judge the program dynamic, EBU R 128 defines the loudness range (LRA). The loudness range quantifies the variations of loudness in time, e.g. the proportion between louder parts and quieter parts.

EBU R 128 claims a program loudness of -23 LUFS (= 0 LU). On the other hand the loudness of most music is about -10 LUFS, ranging up to –5 LUFS. So one might ask why an EBU meter should be used for music.

The answer is simple: While a loudness reference of -23 LUFS isn't very suitable for music, having a standardized tool for loudness measurement certainly is. Due to the open standard, loudness is comparable between different measurement tools.

The loudness range can help judging the loudness across several music titles (premastering) or on long tracks. Especially on premastered music this value might not be very meaningful.

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